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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,498	05/01/2001	Noribumi Koitabashi	684.3183	2379

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EXAMINER


NGUYEN, THINH H

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/845,498	Applicant(s) KOITABASHI ET AL.	
	Examiner Thanh H Nguyen	Art Unit 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-11,13-15,17-19,21,23-26,28-31,34-37,39-42 and 45-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-11,13-15,17-19,21,23-26,28-31,34-37,39-42,45-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Objections

1. Claim 48 is objected to because of the following informalities: the "correcting step" (paragraph 4) is redundant. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

3. Claims 1-33, 45-51 are rejected under 35 U.S.C. § 102(e) as being anticipated by Murcia et al. (U.S. 6,270,187)

Murcia et al. (see reassigning means, fig.8; see also abstract) discloses every element of the instant claimed invention including different operation approaches by supplementing ink for one of the failed nozzles.

One approach is to print in supplementation in a different manner, for example, in substantially one single pass mode or maybe in multipass mode, thereby to effect the throughput of the print image.

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Another approach is to print in supplementation the same color as the failed nozzle(s).

Yet another approach is to assign a print nozzle preferably next to the failed nozzle.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 34-37, 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murcia et al. in view of Hermanson. (U.S. 5,581,284)

Murcia et al. teach the instant claimed apparatus and method of printing for compensating nozzles failure except for printing the black ink in substitution for the non-operative nozzles corresponding to non-black color recording ink.

Hermanson teaches detecting the problem nozzle and compensating the missing dot corresponding to the problem nozzle with ink of different color. For example, black ink can be filled in for missing cyan or magenta droplets (col.5, lines 18-23). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the missing non-black color ink with the black color ink in Murcia et al. as taught by Hermanson for preventing the missing spot and providing adequate printing quality.

Response to Amendment

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Applicant's Amendment filed June 9, 2003 has been entered and carefully considered. However, arguments with respect to claims 1-3, 5-11, 13-15, 17-19, 21, 23-26, 28-31, 34-37, 39-42, 45-50 are not deemed to be persuasive.

Applicant contends (page 17, paragraph 1) that Murcia et al. failed to teach means that selectively operates the plurality of supplementing means depending on the image to be printed as recited in claims 1, 13.

The Examiner disagreed with this contention.

In order to approach one of the method applied in Murcia et al., the controller is understood to be able to discriminate the type of the record image. It is to be noted that the claim does not recited that the plurality of supplementing means depending on the image to be printed as noted by the Applicant.

Applicant again contends (page 17, paragraph 3) that Murcia et al. failed to teach/suggest effecting the plurality of supplementing recording with a different color of the non-operating and with the same lightness as recited in claims 23 and 28.

The Examiner disagreed. Murcia et al. (col.14, line 55 – col.15, line 5) suggests effecting the plurality of supplementing recording with a different color of the non-operating and with the same lightness. (i.e., composite black (CMY) for solid black both exhibit similar lightness)

Applicant further contends (page 17, paragraph 3) that Murcia et al. failed to teach/suggest correcting image data corresponding to a recording which is adjacent to the non-operating recording element of the plurality of recording element as recited in claims 45 and 88.

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Murcia et al. (col.10, lines 9-32) teaches the nearby replacement approach which allows the nozzle next to the failed nozzle to be chosen and its data to be corrected (density to be raised to the level of the failed nozzle) so that it can be printed in place of the failed nozzle.

Lastly, Applicant contends (page 17, paragraph 4 – page 18, paragraph 1) that Hermanson as combined failed to teach/suggest effecting the plurality of supplementing recording with a recording element for black color recording, for a recording position corresponding to the non-operating recording elements for non-black color recording as recited in claims 34, 39.

The Examiner disagreed. Hermanson (col.5, lines 18-23) clearly suggests missing cyan or magenta droplets will be replaced by a black ink droplet.

In view of the foregoing reasons, the examiner asserts that all limitations have been properly evaluated and that the rejection as applied remains proper.

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

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Contact Information

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thinh Nguyen whose telephone number is (703) 308-7487.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



Thinh Nguyen

August 21, 2003

**Thinh Nguyen
Primary Examiner
Technology Center 2800**